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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,627	06/05/2000	Guy Euget	FR9-1999-0073 US1	7746

7590 05/26/2004

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EXAMINER	
RYMAN, DANIEL J	

ART UNIT	PAPER NUMBER
2665	16

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/587,627	EUGET ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/22/2004 have been fully considered but they are not persuasive. On page 7 of the Response, Applicant argues that the amendments added to claims 1 and 9 overcome the prior art. In addition, Applicant argues that the newly added claims 11-14 are distinct from the prior art. Examiner, respectfully, disagrees. The new limitations are directed to claiming that the first SNA request message has address information identifying the target SNA node. Ferguson discloses that an explorer frame is transmitted in order to discover unknown paths to a destination node (col. 3, lines 26-36). Ferguson also discloses that the nodes on the network are identified using addresses (col. 5, lines 36-48). Therefore it is implicit that the explorer frame would contain address information identifying the target SNA node (destination node). As such, Examiner maintains that the prior art renders obvious all of the limitation of the claims, as is outlined in the following rejection.

2. In addition, Examiner notes that claim 8, which is an independent claim, was not amended to include the new limitations. Therefore, the rejection of claim 8 is maintained.

3. For the above reasons, Examiner maintains the rejections of the claims. In order to overcome these rejections, limitations, which distinguish the prior art from the present invention, should be added to the claims.

Information Disclosure Statement

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be

incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The references contained on page 3, lines 18-22 and page 5, lines 7-11 should be included in an IDS.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al (USPN 6,571,272) in view of Mead et al (USPN 6,061,728) in further view of Haggerty et al (USPN 6,331,983).

7. Regarding claims 1 and 8, Ferguson discloses, as prior art, a method for establishing a Systems Network Architecture (SNA) connection between a source SNA node and a target SNA node through a packet switching network using Data Link Switching (DLSw) access services, said packet switching network comprising a plurality of DLSw access nodes, said DLSw access nodes comprising one or a plurality of Data Link Switching (DLSw) access services, connection services that establish connections between DLSw access nodes, and protocol services that are capable of at least one of understanding or interpreting Systems Network Architecture (SNA) protocol (col. 2, line 52-col. 6, line 16), said method comprising the steps of: at a source DLSw access node, receiving from a source SNA node a first SNA request message having an address identifying the target SNA node for requesting the establishment of a SNA connection with the

target SNA node (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 26-36; col. 4, lines 1-36; col. 4, line 64-col. 5, line 24; and col. 5, lines 36-48) where a packet destined for a node on another network is taken to be a request for establishment of an SNA connection with a target SNA and where the "explorer frame" is used to discover a path to a destination such that it is implicit that a destination must be identified wherein the LLC2 network identifies nodes using addresses; at said source DLSw access node, locating a target DLSw access node providing access to the target SNA node, sending an undirected query (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 17-37 and col. 4, lines 1-36) where this is implicit since it is necessary in order to establish a connection between the source DLSw and the target DLSw; at target DLSw access node providing access to the target SNA node, in response to the undirected query, sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node providing access to the target SNA node (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 17-37 and col. 4, lines 1-36) where it is implicit that addressing information is contained in a packet since packets are routed according to source and destination addresses; establishing a reserved or non reserved connection within the packet switching network between the source DLSw access node and the target DLSw access node (col. 2, line 52-col. 6, line 16, esp. col. 5, lines 25-48); at the target DLSw access node, sending to the target SNA node a second SNA request message for requesting the establishment of a SNA connection (col. 2, line 52-col. 6, line 16, esp. col. 5, lines 25-48) where, although this is not expressly stated, it is implicit that such a message is necessary in order to inform the target node that a connection is to be formed; and establishing a SNA connection between the source SNA node and the target SNA node (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 26-36 and col. 5, lines 25-48). Ferguson

does not disclose that Data Link Switching (DLSw) nodes locate resources across the packet switching network using a spanning tree, such as by at said source DLSw access node, sending an undirected query over the spanning tree. Mead teaches, as prior art, that different techniques can be used to find a route to a target node including all-route-explorers which broadcast an explorer frame to discover a route to a host node (col. 1, lines 16-36; col. 2, lines 7-19; and col. 2, lines 49-67). Mead also discloses the use of a spanning tree in order to ensure that there is only a single path to a particular node through a network (col. 1, lines 38-53). Haggerty teaches, as prior art, that spanning trees reduce the number of messages transmitted during a broadcast through a network (col. 6, lines 12-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to locate a target DLSw access node providing access to the target SNA node by sending an undirected query over the spanning tree since spanning trees minimize the number of messages transmitted through a network during a broadcast where broadcasting is a well known mechanism used to find a route to a node.

8. Regarding claim 2, referring to claim 1, Ferguson in view of Mead in further view of Haggerty suggests that the step of establishing a SNA connection between the source SNA node and the target SNA node, further comprises the steps of: at the target DLSw access node, receiving from the target SNA node and forwarding to the source DLSw access node a response to the second SNA request message indicating that the SNA connection between the source SNA node and the target SNA node is established (Ferguson: col. 2, line 52-col. 6, line 16, esp. col. 3, lines 17-37 and col. 4, lines 1-36 and Mead: col. 1, line 16-36 and col. 2, line 59-col. 3, line 6); and at the source DLSw access node, receiving from the target DLSw access node the response to the second SNA request message and sending to the source SNA node a response to the first

SNA request message indicating that the SNA connection between the source SNA node and the target SNA node is established (Ferguson: col. 2, line 52-col. 6, line 16, esp. col. 3, lines 17-37 and col. 4, lines 1-36 and Mead: col. 1, line 16-36 and col. 2, line 59-col. 3, line 6).

9. Regarding claim 3, referring to claim 2, Ferguson in view of Mead in further view of Haggerty discloses in the source DLSw access node, storing the addressing information of the target DLSw access node providing access to the target SNA node (Mead: col. 6, lines 37-51).

10. Regarding claim 4, referring to claim 3, Ferguson in view of Mead in further view of Haggerty suggests determining whether the addressing information of the target DLSw access node providing access to the target SNA node has been previously stored (Mead: col. 1, line 65-col. 2, line 7 and col. 6, lines 37-51); retrieving the addressing information of the target DLSw access node providing access to the target SNA node when said addressing information has been previously stored (Mead: col. 1, line 65-col. 2, line 7 and col. 6, lines 37-51); and sending by means of said retrieved addressing information a point to point directed query to the target DLSw access node providing access to the target SNA node (Mead: col. 1, line 65-col. 2, line 7 and col. 6, lines 37-51).

11. Regarding claim 5, referring to claim 4, Ferguson in view of Mead in further view of Haggerty discloses that the addressing information of the target DLSw access node providing access to the target SNA node comprises addressing information of the target DLSw access services within said target DLSw access node (Ferguson: col. 5, lines 36-48 and col. 6, lines 7-16 and Mead: col. 6, lines 37-51).

12. Regarding claim 6, referring to claim 5, Ferguson in view of Mead in further view of Haggerty discloses that the undirected query comprises addressing information, in particular

Medium Access Control/Service Access Point (MAC/SAP) address, of the target SNA node (Ferguson: col. 5, lines 36-48 and col. 6, lines 7-16).

13. Regarding claim 9, Ferguson discloses, as prior art, a method for establishing a Systems Network Architecture (SNA) connection between a source SNA node and a target SNA node through a packet switching network using Data Link Switching (DLSw) access services (col. 2, line 52-col. 6, line 16), comprising the steps of: receiving at a source DLSw access node a first SNA request message having an address identifying the target SNA node, the SNA request message requesting an establishment of a SNA connection to a target SNA node (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 26-36; col. 4, lines 1-36; col. 4, line 64-col. 5, line 24; and col. 5, lines 36-48) where a packet destined for a node on another network is taken to be a request for establishment of an SNA connection with a target SNA and where the "explorer frame" is used to discover a path to a destination such that it is implicit that a destination must be identified wherein the LLC2 network identifies nodes using addresses; sending an undirected query from said source DLSw access node over a spanning tree to locate a target DLSw access node, the target DLSw providing access to the target SNA node (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 17-37 and col. 4, lines 1-36) where this is implicit since it is necessary in order to establish a connection between the source DLSw and the target DLSw; sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node in response to the undirected query (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 17-37 and col. 4, lines 1-36) where it is implicit that addressing information is contained in a packet since packets are routed according to source and destination addresses; establishing a reserved or non-reserved connection within the packet switching network between the source DLSw access node

and the target DLSw node (col. 2, line 52-col. 6, line 16, esp. col. 5, lines 25-48); sending to the target SNA node a second SNA request message that requests the establishment of a SNA connection (col. 2, line 52-col. 6, line 16, esp. col. 5, lines 25-48) where, although this is not expressly stated, it is implicit that such a message is necessary in order to inform the target node that a connection is to be formed; and establishing a SNA connection between the source SNA node and the target SNA node (col. 2, line 52-col. 6, line 16, esp. col. 3, lines 26-36 and col. 5, lines 25-48). Ferguson does not disclose sending an undirected query is sent over a spanning tree or that addressing information contained in the reply message is stored within a local directory database for future use. Mead teaches, as prior art, that different techniques can be used to find a route to a target node including all-route-explorers which broadcast an explorer frame to discover a route to a host node (col. 1, lines 16-36; col. 2, lines 7-19; and col. 2, lines 49-67). Mead also discloses the use of a spanning tree in order to ensure that there is only a single path to a particular node through a network (col. 1, lines 38-53). Haggerty teaches, as prior art, that spanning trees reduce the number of messages transmitted during a broadcast through a network (col. 6, lines 12-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to locate a target DLSw access node providing access to the target SNA node by sending an undirected query over the spanning tree since spanning trees minimize the number of messages transmitted through a network during a broadcast where broadcasting is a well known mechanism used to find a route to a node. Further, Mead discloses storing addressing information contained in the reply message within a local directory database for future use (col. 1, line 16-36) where it is implicit that this is done in order to minimize the amount of searching that needs to be performed in a network. It would have been obvious to one of ordinary skill in

the art at the time of the invention to store addressing information contained in the reply message within a local directory database for future use in order to minimize the amount of searching that needs to be performed in a network.

14. Regarding claim 10, referring to claim 9, Ferguson in view of Mead in further view of Haggerty suggests that the storing addressing information contained in the reply message comprises removing information in the local database if a negative reply is received. If a negative reply is received, this indicates that the resources are not located at that location, such that any reference in the local database to resources at that location should be removed. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to remove information in the local database if a negative reply is received in order to prevent incorrect information from being stored in the database.

15. Regarding claims 11 and 13, referring to claims 1 and 9, Ferguson in view of Mead in further view of Haggerty discloses that the address identifying the target SNA node comprises at least Medium Access control and Service Access Point information (Ferguson: col. 5, lines 36-47 and col. 6, lines 7-16).

16. Regarding claims 12 and 14, referring to claims 11 and 13, Ferguson in view of Mead in further view of Haggerty suggests that sending the undirected query over the spanning tree comprises performing an undirected directory search over the spanning tree with the Medium Access Control and Service Access Point information as a search parameter (Ferguson: col. 5, lines 36-47 and col. 6, lines 7-16 and Mead: col. 1, lines 16-36; col. 2, lines 7-19; and col. 2, lines 49-67).

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al (USPN 6,571,272) in view of Mead et al (USPN 6,061,728) in further view of Haggerty et al (USPN 6,331,983) as applied to claim 6 above, and further in view of Applicant's admitted prior art.

18. Regarding claim 7, referring to claim 6, Ferguson in view of Mead in further view of Haggerty does not expressly disclose that the packet switching network is a Networking Broadband Services (NBBS) network. Applicant admits that NBBS is a well-known fast packet switching network (page 1, line 21-page 2, line 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to use NBBS since NBBS is a well-known fast packet switching network.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baratz et al (USPN 4,914,571) see col. 2, lines 28-62 which pertains to searching for resources in a computer network. Lebizay et al (USPN 5,602,841) see col. 8, lines 40-62 which pertains to a control point spanning tree. Derby et al (USPN 5,426,637) see Fig. 10 which pertains to the steps taken to set-up a connection between two similar LANs. Shankar et al (USPN 5,909,550) see col. 3, line 46-col. 4, line 43 which details explorer frames in SNA. Periasamy et al (USPN 5,737,526) see col. 1, line 35-col. 3, line 30 which teaches having a hierarchical DLSw network to reduce the amount of explorer traffic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (703)305-6970. The examiner can normally be reached on Mon.-Fri. 7:00-5:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703)308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel J. Ryman
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